Claim Amendments

Claims 1-4 (canceled)

Claim 5 (currently amended): A method for generating images comprising the steps of:

introducing information into a computer from which the images are produced;

producing the images with texture that do not have visible grid artifacts with the computer using a bit-manipulation to generate a six bit quantity from an integer lattice point i,j,k, where the six bit quantity is defined as a lower six bits of a sum:

b(i,j,k,0) + b(j,k,i,1) + b(k,i,j,2) + b(i,j,k,3) + b(j,k,i,4) + b(k,i,j,5) + b(i,j,k,6) + b(j,k,i,7)

define b(i,j,k,B):

patternIndex = 4 * bit_B(i) + 2 * bit_B(j) + bit_B(k)

return bitPatterns[patternIndex]

where B is 0 or a positive integer; [[and]]

generating a gradient direction using the six bit quantity; and

displaying the images on a display.

Claims 6-11 (canceled)

Claim 12 (currently amended): A method as described in Claim [[11]] 19 including the step of using the skewed input point to determine a surrounding unit cube whose corner vertex with lowest coordinate values is:

$$(i',j',k') = (\text{floor}(x'),\text{floor}(y'),\text{floor}(z')).$$

Claim 13 (original): A method as described in Claim 12 wherein the producing step includes the step of evaluating each vertex of all 4 vertices of the grid.

Claim 14 (canceled)

Claim 15 (currently amended): A method as described in Claim [[14]] 20 wherein the producing step has a computational complexity on the order of n^2 [[$O(n^2)$]].

Cancel Claims 16-18.

Claim 19 (new): A method for generating images comprising the steps of:

introducing information into a computer from which the images are produced;

producing the images with texture that do not have visible grid artifacts with the computer by placing an input point x,y,z onto a simplicial grid; where x, y and z are integers;

skewing the input point to:

define skew((x,y,z) -> (x',y',z')) : $s = (x+y+z)/3$ $(x',y',z') = (x+s,y+s,z+s)$; and

displaying the images on a display.

Claim 20 (new): A method for generating images comprising the steps of:

producing the images with texture that do not have visible grid artifacts with the computer by decomposing a hypercube into n! simplices, where each simplex corresponds to

an ordering of an edge traversal of the hypercube from its lowest vertex (0,0,. . 0) to its upper vertex (1,1. . 1), where n is greater than or equal to 3 and is an integer; and

displaying the images on a display.